Title: HANDOFF APPARATUS, SYSTEMS, AND METHODS

Assignee: Intel Corporation

Page 8 Dkt: 884.B50US1 (INTEL)

## REMARKS

This communication responds to the Office Action mailed on August 22, 2005. Claims 1, 5, 8, 11, 13-14, 17, 22, 26, 28, 30-31, and 33 are amended, claims 4 and 25 are canceled, and no claims are added. As a result, claims 1-3, 5-24, and 26-33 are now pending in this Application. Claims 5, 11, 14, 26, 30, and 33 have been amended to maintain consistency with the independent claims, or to correct typographical errors, and not for reasons related to patentability.

## Information Disclosure Statement

The Applicant filed an Information Disclosure Statement on May 13, 2005. However, the Form 1449 received thereafter did not have one of the documents listed thereon (U.S. Patent No. 6,377,804 to Lintulampi) marked by the Examiner as being considered. The Applicant therefore respectfully requests that a copy of Form 1449 be returned with the next official communication, marked and initialed by the Examiner as having all references considered that were submitted with the Information Disclosure Statement filed on May 13, 2005.

## §103 Rejection of the Claims

Claims 1-21 were rejected under 35 USC § 103(a) as being unpatentable over Seshadri et al. (U.S. 2004/0114546 A1; hereinafter "Seshadri") in view of Sivanandan (U.S. 2004/0009770 A1; hereinafter "Sivanandan"). Claims 22-33 were rejected under 35 USC § 103(a) as being unpatentable over Rom (U.S. 6,360,264 B1; hereinafter "Rom") in view of Sivanandan and further in view of Seshadri. First, the Applicant does not admit that Seshadri, Sivanandan, or Rom are prior art, and reserves the right to swear behind these references in the future. Second, since a prima facia case of obviousness has not been established in each case, the Applicant respectfully traverses these rejections.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a *prima facie* case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill

in the art that would lead an individual to combine the relevant teaching of the references. *Id.*The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. M.P.E.P. § 2142 (citing In reVacck, 947 F.24 488, 20 U.S.P.O.2d (BNA) 1438 (Fed. Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d (BNA) 1443 (Fed. Cir. 1992). However, while it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 U.S.P.Q.2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979)). However, the level of skill is not that of the person who is an innovator but rather that of the person who follows the conventional wisdom in the art. *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 474, 227 U.S.P.Q. 293, 298 (Fed. Cir. 1985). The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In re Sang Su Lee*, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which notes that the motivation must be supported by evidence in the record.

No proper *prima facie* case of obviousness has been established because (1) combining the references does not teach all of the limitations set forth in the claims, (2) there is no motivation to combine the references, and (3) combining the references provides no reasonable expectation of success. Each of these points will be explained in detail, as follows.

Combining the References Does Not Teach All Limitations: First, with respect to independent claims 1, 8, 13, 17, and 28, no combination of Seshadri, Sivanandan, or Rom

Assignee: Intel Corporation

renders all of the claim limitations. Seshadri does not teach the presence of "receiving a request associated with a specification defining a traffic stream quality of service at a first access point to locate a second access point capable of supporting the specification," (claims 1, 8) or "a transceiver to receive a request associated with a specification defining a traffic stream quality of service at a first access point to locate a second access point capable of supporting the specification," (claim 13) or "a first receiver included in a first access point to receive a request associated with a specification defining a traffic stream quality of service, wherein the first access point is to locate a second access point capable of supporting the specification," (claim 17) or "a transmitter to send a request associated with a specification defining a traffic stream quality of service to a first access point to locate a second access point capable of supporting the specification," (claim 28) as claimed by the Applicant. Neither do Sivanandan or Rom. While the assertion is made that such elements are disclosed with respect to the teachings of Seshardi and the IEEE 802.11 standard in the Office Action, a close reading of the reference reveals that the assertion is in fact not correct.

Seshardi does disclose the use of devices that can communicate according to certain aspects of the IEEE 802.11 standard. However, this does not include receiving a request "defining a traffic stream quality of service," or *communicating* "the request to the second access point" or "a second receiver included in the second access point to receive the request associated with the specification, wherein the second access point is to determine support of the specification." Thus, independent claims 1, 8, 13, 17, and 28 are nonobvious in view of Seshadri, Sivanandan, and Rom. This conclusion applies with even greater force respecting dependent claims 2-4, 5-7, 9-12, 14-16, 18-21, and 29-30 since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03.

Second, with respect to independent claim 22, 28, and 31, no combination of Seshadri, Sivanandan, or Rom will render all of the claim limitations. Rom does not teach the presence of "a self determination request" (claim 22) to determine an access point capable of supporting "a specification defining a traffic stream quality of service" (claims 28 and 31) as claimed by the Applicant. Neither do Seshardi or Sivanandan. While the Office asserts that "self-organization, re-association, reconfiguration", disclosed in Cols. 1 and 2 of Rom, are somehow equivalent to

"self-determination" claimed by the Applicant, a close reading of Rom reveals that the assertion is in fact not correct

Rom does discuss communication between network nodes and self-organization upon node power-up. However, this is merely the action of a node acquiring parameters "that will enable it to effectively communicate within the cell ...". Rom, Col. 2, lines 2-3. A self-determination request, on the other hand, results in a response such that "... information received in response to this request, from either the first or second AP, allows the device to determine that the specification is supported by the second AP". Application, pg. 10, para. [0034].

Reconfiguring a device has nothing to do with self-determination.

Finally, none of the references includes "receiving a request associated with a traffic specification defining a traffic stream quality of service and selected in accordance with an Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard and a list of candidate access points" (claim 31) as claimed by the Applicant. While a contrary assertion is made in the Office Action with respect to Seshardi at pg. 5, para. [0049], a close reading of Seshardi reveals that the assertion is in fact not correct. The list referred to there is one constructed at the device by the device itself, and not received with the request, as claimed by the Applicant.

Further, if the Office relies on inherency then, as recited in MPEP § 2112, "... the examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art," citing Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). No such basis has been provided. In fact, there is no technical reason why a list of candidate access points needs to be sent with a request associated with a traffic specification – it is entirely possible to send the request to selected access points, one at a time.

Thus, independent claims 22, 28, and 31 are also nonobvious in view of Seshadri, Sivanandan, and Rom. This conclusion applies with even greater force respecting dependent claims 23-24, 26-27, 28-30, and 32-33, since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03.

No Motivation to Combine References: Seshardi teaches a mesh network comprising a group of identical cells. See Seshardi, FIG. 2 and Pg. 4, para [0044]. Any access point in any one cell can connect with any access point in a neighboring cell – there is no need to determine

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111 Serial Number: 10/736,159 Filing Date: December 15, 2003 Title: HANDOFF APPARATUS, SYSTEMS, AND METHODS Assignee: Intel Corporation

access point capability. See Id. at para. [0045]. As a matter of contrast, Sivanandan teaches the exchange of capabilities between disparate access technologies. See Sivanandan, pg. 1, para. [0002]. It is because of the presence of disparate components that Sivanandan describes the necessity of exchanging capability information. See Id. at para. [0003]. Thus, there is no need to modify Seshardi to incorporate the information exchange of Sivanandan, as this would add needless complexity to Seshardi's system, which emphasizes compatibility, rather than diversity. See Seshardi, pg. 2, para. [0015]. This lack of motivation to modify Seshardi contradicts the Office Action assertion that "it would have been obvious ... to provide above teaching of Sivandan to Seshardi to exchange ... capability information so that on one hand the network is able to offer to the mobile station such services which the mobile station is both capable and willing to utilize ..." or that "[t]his motivation comes from Seshardi, so that the access device ... may be adapted to select the best candidate for a handoff." Because Seshardi assumes 802.11 protocol usage, Seshardi only looks to environmental characteristics (e.g., signal strength), and not device capabilities, to determine handoff opportunities. See Seshardi, pg. 2, para. [0018] and pg. 5, para. [0049].

It is respectfully noted that references must be considered in their entirety, including parts that teach away from the claims. See MPEP § 2141.02. Since Seshardi teaches away from the claimed combination, there is no motivation to combine the references. Further, the use of unsupported assertions in the Office Action does not satisfy the explicit requirements needed to demonstrate motivation as set forth by the *In re Sang Su Lee* court. Therefore, the Examiner appears to be using personal knowledge, and is respectfully requested to submit an affidavit as required by 37 C.F.R. § 1.104(d)(2).

No Reasonable Expectation of Success: Modifying Seshadri by using Savinandan to implement the claimed embodiments overlooks the lack of the element "traffic stream quality of service" claimed by the Applicant, which is not provided by any of the references. Therefore, one of ordinary skill in the art would expect an inoperative combination to result.

Similarly, there is nothing that would lead one of ordinary skill in the art to expect success when implementing the teaching of Rom in conjunction with Seshadri, since Rom does not teach the use of a "self-determination request." The addition of Sivanandan does nothing to remedy this deficiency.

Assignee: Intel Corporation

Again, the use of unsupported assertions in the Office Action does not satisfy the explicit requirements needed to demonstrate motivation as set forth by the *In re Sang Su Lee* court. Therefore, the Examiner appears to be using personal knowledge, and is respectfully requested to submit an affidavit as required by 37 C.F.R. § 1.104(d)(2).

The test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985). The fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

Therefore, since there is no evidence in the record that combining Seshardi, Savinandan, or Rom can provide a "a request associated with a traffic specification defining a traffic stream quality of service," or "communicating the request to the second access point," or a "self-determination request" as claimed by the Applicant; since there is no motivation to supply the missing elements (because the references teach away from such a combination); and since no reasonable expectation of success arises, a prima facie case of obviousness has not been established with respect to independent claims 1, 8, 13, 17, 22, 28, and 31, or any of the claims that depend from them. It is therefore respectfully requested that the rejections of claims 1-33 under 35 U.S.C. § 103 be reconsidered and withdrawn.

## CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney, Mark Muller at (210) 308-5677, or the undersigned attorney at (612) 349-9592, to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By his Representatives,

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Date Oct. 20 2005

By <u>Conn 911 97/16</u>

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